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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/720,078	11/25/2003	Ki-Ju Lee	1793.1087	4901

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EXAMINER

CRIBBS, MALCOLM D

ART UNIT	PAPER NUMBER
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2115

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/05/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/720,078

Applicant(s)

LEE, KI-JU

Examiner

Malcolm D. Cribbs

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 January 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-39 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 4,11,19,26 and 33 is/are allowed.
- 6) ☒ Claim(s) 1,2,5,7-9,12,14-17,20,22-24,27,29,30,32,34-36,38 and 39 is/are rejected.
- 7) ☒ Claim(s) 3,6,10,13,18,21,25,28,31 and 37 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claims 1-39 are presented for examination.

5 ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

10 (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

 Claims 1, 2, 5, 7-9, 12, 14-17, 20, 22-24, 27, 29-30, 32, 34-36, and 38-39 are rejected under 35 U.S.C. 102(b) as being anticipated by Matsuura [Patent No. US
15 6,412,082].

As per claims 1, and 15-16, Matsuura teaches the invention comprising:

 a first boot zone storing a first booting program [Fig. 5, Col 2 lines 2-6; boot program starting from boot address #1];

20 a second boot zone storing a duplicate of the first booting program, as a second booting program [Fig. 5, Col 2 lines 2-6; boot program starting from boot address #2];
and

 a data zone storing an executable firmware program [Application program of Fig. 7], executable and accessible based on selectable booting of the first or second booting
25 programs when executed after execution of the first or second booting programs, such

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that execution of the first booting program is selectively commenced by a controller based on error detection results of the first boot zone and such that execution of the second booting program is selectively commenced by the controller based upon an error being detected in the first boot zone and on error detection results of the second boot zone [Col 10 line 1 – Col 11 line 25; and Col 2 lines 6-12; wherein boot address #1 is checked for errors and based on an error being detected in boot address #1 [S11 of Fig. 11] boot address #2 is checked for errors [S19 of Fig. 11 wherein the selected address is boot address #2] and upon no errors being detected in the boot address #2, boot address #2 is commenced].

10

As per claims 2, 5, 7-8, 17, and 23, it is directed to a memory protection apparatus to implement the flash memory as set forth in claims 1, and 15. Therefore, it is rejected on the same basis as set forth hereinabove.

15 **As per claims 9, 12, 14, 22, 24, 27, and 29,** it is directed to a method of steps to implement the memory as set forth in claims 2, 7, and 17. Therefore, it is rejected on the same basis as set forth hereinabove.

20 **As per claims 30, 32, 34-36, and 38-39,** it is directed to a storage system to implement the flash memory as set forth in claims 1, and 15. Therefore, it is rejected for the same basis as set forth hereinabove.

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Claims 4, 11, 19, 26, 33 are allowed.

Claims 3, 6, 10, 13, 18, 21, 25, 28, 31, and 37 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in

5 independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the
10 examiner should be directed to Malcolm D. Cribbs whose telephone number is 571-272-5689. The examiner can normally be reached on M-F 8AM-430PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Lee can be reached on 571-272-3667. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

- 5 For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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Malcolm D Cribbs
Examiner
Art Unit 2115

March 30, 2007
MC

THOMAS LEE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100

